



California Biodiversity Council Ocean and Coastal Economic Summit Meeting Minutes

Friday, July 22, 2005

Community Center
Cesar Chavez Park
401 Golden Avenue
Long Beach, California
8:00 a.m. – 3:00 p.m.

Council Business

Welcome and Introductions – Mike Chrisman

Mike Chrisman welcomed council members and the public to the meeting. Council members introduced themselves.

Council Announcements

Mike Pool is unable to attend today.

Mike Chrisman acknowledged three long-time members that have retired from the CBC this year. These three members will be receiving plaques for their service which will be delivered to their offices.

- Jerry Harmon, former Mayor of the City of Escondido, has represented the San Diego region on the CBC since 1994 as a Board Member of the San Diego Association of Governments. He is the longest standing CBC Member to date and the last original Member to retire.
- Alex Glazer has been with the CBC since 1997 as Director of the University of California Natural Reserve System. Glazer is also professor of the graduate school in UC Berkeley's Department of Molecular and Cell Biology. He has been a faithful member of the CBC's Executive Committee.
- Doug Balmain is professional forester and private forest landowner by education and training. He served as Supervisor of Mariposa County for 2 terms, 8 yrs total. He was on CBC these entire 8 yrs and regularly attended meetings. He and his

wife flew their private plane to almost every meeting. Doug did a great job of getting the views of local county supervisors into the heads of state/federal leaders.

Executive Committee Report – Tony Danna

Tony Danna explained that the Staff Committee and Executive Committee have officially combined into one committee. This decision was made because staff resources and workload have dwindled over the years so the Executive Committee has decided to take on the role of leading the development of future meetings. Staff will be called upon ad hoc from agencies who lead the various meetings. Tony announced that the next CBC meeting will be on December 1, 2005 in Sacramento and the topic will be Invasive Species. A small planning group will be meeting next month. The CBC's first 2006 meeting will be April 5-6, 2006 and will focus on conservation in the Central Valley. A planning team is being formed for this meeting and will also be meeting next month. Please contact Lauren McNees if you are interested in participating.

Field Trip Summary – Brian Baird

Everyone had a great time on the harbor cruise of the Ports of the Long Beach and Los Angeles. It was a unique opportunity to see a working port. Thanks to the Port Authority for providing the Biodiversity Council with this education trip. Thanks to the Aquarium for hosting a wonderful dinner. We had an excellent keynote presentation during dinner from Jerry Schubel. Dr. Schubel demonstrated the relationship of ocean and coastal resources to the economy and the need for ocean protection.

Opening Comments – Mike Chrisman

Today the California Biodiversity Council is hosting the first California Ocean and Coastal Economic Summit. This meeting will focus on the protection and management of California's ocean and coastal resources, but with a focus on economics. I'm convinced that we must improve our understanding and appreciation of the economic contribution of our ocean and coastal resources as it goes hand in hand with our efforts to preserve biodiversity. When we think about the challenges of protecting and managing our ocean and coastal environments, we sometimes limit our thinking to the purely scientific components of a healthy ecosystem. Recent findings of both the U.S. Commission on Ocean Policy and the Pew Oceans Commission have made it clear that we must also understand how human-driven ocean and coastal economics affect the ecosystem. The governor's action plan called on the National Ocean Economic Project to prepare an economic analysis for California titled *California's Ocean Economy*. Action three of that plan also calls for a summit to present and discuss the new report. I serve as chair to the Governor's Ocean Protection Council, and we're working to focus on evaluating ways to use economic tools, such as market processes, to help guide our efforts manage and protect our resources. Today's Biodiversity Council meeting provides a perfect forum for this discussion that we hope will help us better understand and use economic analysis and tools for ocean and coastal management.

California's Commitment To Ocean and Coastal Management

Our governor is very engaged in this issue. As many of you know, during his time in office he has:

- Hosted a major Ocean Summit to determine how to create the most effective and efficient approach to ocean and coastal protection.
- Provided some of the strongest comments of any coastal governor on the report of the U.S. Commission on Ocean policy and has worked since to help implement actions at the national level.
- Signed legislation to create the California Ocean Protection Council, as well as many other bills benefiting the ocean and coastal environment.
- Approved a \$26.2 million in funds to support actions to protect and manage our ocean and coastal resources.

Our Program Today

This meeting of the Biodiversity Council is intended to help provide information for the Ocean Protection Council to use to help inform its future resource protection objectives. The council will consider the recommendations from this summit at our next meeting in San Diego on September 23.

We will hear a summary of the results of the new study from the National Oceans Economic Project. Its findings will help us determine the contribution of California's ocean and coast to the state's economy. Speakers from government agencies, academia, philanthropic interests, non-governmental organizations, and others will provide their views on how economic evaluation and new market based approaches can help us: create new restoration opportunities, attract more money from the federal government or philanthropic interests, and contribute to our efforts to enhance biodiversity.

KEYNOTE PRESENTATIONS

Introductions by Mike Chrisman, Secretary for Resources

To kick-off today's meeting, Dr. Judith Kildow and Dr. Charles Colgan of the National Ocean Economics Program will present the major findings of the *California's Ocean Economy* report. This study, released today, is the most comprehensive of its kind in the country and provides conclusive evidence that California has the largest and most significant ocean economy in the nation. A full copy of this report has been provided to all members of the Biodiversity Council. Copies of the executive summary are available to the public, and the report is on the Resources Agency Website at: www.resources.ca.gov.

Dr. JUDITH KILDOW holds the James W. Rote Distinguished Professorship in Science and Environmental Policy at California State University at Monterey Bay. She is Principal Investigator and Director of The National Ocean Economics Program. She

previously served for 26 years on the faculty of the Massachusetts Institute of Technology.

Dr. CHARLES COLGAN is a Professor of Public Policy and Management in the Muskie School of Public Service at the University of Southern Maine. He serves as Chief Economist for the Market Data for the National Ocean Economics Program. He is a former director of the Maine Coastal Program and has been active with the national Coastal States Organization.

We are honored to have Dr. Dennis Kelso here today from the David and Lucile Packard Foundation to provide us with the perspective of the philanthropic community on these issues. Unfortunately, Jim Leape was unable to participate in this presentation as he recently accepted a job as Director General of WWF International in Switzerland.

Dr. DENNIS KELSO is Program Officer for Marine Fisheries at the David and Lucile Packard Foundation. Before joining Packard earlier this year, Dr. Kelso was Assistant Professor of Environmental Studies at the University of California-Santa Cruz. Kelso served as Alaska's Commissioner of Environmental Conservation when Exxon Valdez ran aground in 1989 and directed the state's oversight of the cleanup and enforcement of environmental laws. He was awarded a Pew Fellowship in Marine Conservation in 2003.

Major Findings of California's Ocean Economy Report

Judy Kildow, California State University, Monterey Bay

The National Ocean Economic Program has put together a summary of the report that is available on their website: www.oceaneconomics.org. California has the largest Ocean Economy in the United States, ranking number one overall for both employment and gross state product (GSP). The total GSP of California's Ocean Economy in 2000 was approximately \$42.9 billion. Coastal tourism and recreation is the largest sector. Eating/drinking places and hotels/lodging are the largest grossing industries in Tourism and Recreation Sector. Tourism and Recreation paid the lowest average wages in 2000. Coastal county employment grew faster than housing. Tourism and recreation employees cannot afford to live at the coast. Report documents decline in the fishery sector. Most Californians live and work in coastal counties. The coast is very important economically to California.

Charlie Colgan, University of Southern Maine

The Ocean Economy is measured by what is produced and sold, what is produced but not sold and where economic activity takes place. Ocean Economy is economic activity using ocean resources as input. Coastal Economy is all economic activity located in the coastal zone. Sectors of the Ocean Economy are Construction, Living Resources, Minerals, Ship and Boat Building, Tourism and Recreation, and Transportation. The total GSP of California's Ocean Economy in 2000 was approximately \$42.9 billion.

California's Ocean Economy directly provided approximately 408,000 jobs and \$11.4 billion in wages and salaries in 2000, and almost 700,000 jobs and \$24 billion in wages and salaries when multiplier effects are included. Tourism and Recreation is largest sector, increased from 1990-2000. Living resources declined. Transportation declined. Southern California has the largest ocean economy, but the ocean economy has the largest proportion of economy in northern region. Ocean economy is more important in rural areas. Housing growth occurs upland. Employment growth occurs nearshore. The ocean economy is shifting from spatially intensive to extensive growth.

Discussion

Should we have more reports at the national level? The National Ocean Economic Program (NOEP) is a national program. They have completed a general study nationwide and will be conducting similar studies to this one for different coastal states

Has any state been able to take this information and use it for management? The California study is the most comprehensive study. The data for the rest of country is more skeletal. California can be the model for the rest of the country.

What is the next step? Data is collected through 2003. NOEP will be posting the data on their web-site. They will update the summaries. Data can be used for forecasting. Forecasting 2004 data will be available soon. Forecast of ocean economy out 5 years will allow us to see what the trends will be and link data to resource change.

Please elaborate on relationship between rural and coastal? Most of ocean economy takes place in metro areas. Ocean economy as proportion of local economy is larger in rural areas. NOEP is going to emphasize more and more natural resources. They have mapped the top ten fisheries. They are gathering data to do same thing for offshore oil and gas. Non-market part of the study is being done by Linwood Pendelton.

How do you factor in external factors to California and US? NOEP does not have fisheries wages, salaries and employment. This is a huge gap. Price of oil is tied to world price. Forecasting data will help with this. The task is to separate local and global. Global declines in fisheries, local story is why that is happening. What are the changes that are unique to California?

Do you have recreational fishing data? NOEP is now in contact with recreational fisherman and will have recreational fishing data in 6 months.

Do you have data for funding of beach nourishment? NOEP now have some sources and will gather it.

Economic Information in Funding Decisions
Dennis Kelso, Packard Foundation

California's commercial catch has declined precipitously. 90% of big fish are gone. Fishing down marine food webs occurs everywhere. Size matters for rockfish. Rockfish have declined. Packard trustees just met to talk about market interventions. Once you have severe overcapacity it is hard to recover. Tools for recovery: supply- dedicated access, elimination of perverse subsidies, capacity reduction and securitization; demand- certification for sustainability, consumer education, market transformation. Packard foundation is focusing on demand side. Packard is working the Marine Stewardship Council to certify sustainable fisheries. Packard is also working with the state of California on the Marine Life Protection Act Initiative.

Discussion

How do we deal with declining marine resources? Could you talk about supply side activities? The main problem is overcapacity. There have been successful experiments in controlling capacity. The Halibut fishery in Alaska was just a 24 hour fishery at one point. There was tremendous capacity managed only by total catch and time of open and closure. Limited entry and tradable quotas was very helpful in making this fishery safer and improved the quality of fish.

What role has pollution played in the decline of fisheries? Is fish-farming appropriate? The impact of pollution depends on the life cycle of fish. It is not well understood but it does make a difference. Many types of aquaculture do not have impacts but some cases of heavy impact like shrimp farming where mangroves are converted and salmon pens. Farmed salmon feed comes overfished fisheries. Aquaculture will make an important contribution but it will not help if capacity is not reduced.

MORNING SESSION: Using Economic Data to Improve Ocean and Coastal Management: Results, Application, and Future Studies
Session Chair: Mike Chrisman, Secretary for Resources

Introduction, Purpose, and Goals for this Session **Mike Chrisman, Secretary for Resources**

I'd like to welcome everyone to our first panel discussion for this morning. The objective of this group is to provide us with an overview of areas of inquiry that address ocean and coastal management issues currently facing the State of California and other stakeholders. Today we will hear about economic and social information as it relates to sediment, fisheries, non-native species, and other issues. Our speakers will also discuss the importance of considering non-market factors and the societal impacts of management decisions.

Dr. LINWOOD PENDLETON is an Associate Professor at the University of California Los Angeles. His current research focuses on the economics of environmental goods and services, especially those in the coastal zone. Dr. Pendleton also serves as the Lead Economist for Non-Market Research for the National Ocean Economic Program.

Dr. PHILIP KING is Chair and Associate Professor at the Department of Economics at San Francisco State University. His research focuses on Development Economics, International Trade, Industrial Organization, and the Economics of regional sediment management.

Dr. CARRIE POMEROY recently began a position as a California Sea Grant Marine Advisor. Previously, she was a Research Scientist with the Institute of Marine Sciences at UC Santa Cruz. Dr. Pomeroy is a social scientist whose work focuses on the social, economic and cultural aspects of fisheries as they affect and are affected by management.

Dr. CHRIS COSTELLO is an Associate Professor of Environmental and Resource Economics at the Donald Bren School of Environmental Science & Management, UC Santa Barbara. His research is primarily in the area of environmental regulation and natural resource management under uncertainty, with a particular emphasis on information, its value, and its effect on policy.

Panel Presentation

Linwood Pendleton, University of California Los Angeles

What kinds of values are produced by marine ecosystem goods and services? How big are these values? Why do we need this information? Where can you find this information? Market values include commercial fishing, aquaculture, tourism, etc. Non-market values include diving, recreational fishing, boating, surfing, wildlife viewing, etc. There is not any central place to find non-market values. The NOEP has put together a non-market portal of literature. Non-market values are useful in policy decisions e.g. habitat restoration, species reintroduction, tradeoffs for closing beaches, etc. The Marine Life Protection Act Initiative is one example of using economics in management decisions.

Philip King, San Francisco State University

The Known knowns: California beaches are valuable, human involvement will grow, development comes at a cost, infrastructure cannot keep up, beaches are eroding, accurate data is essential on micro-level. The Known unknowns: Time Series data, good attendance data, recreational value, non-recreational value. Unknown unknowns: we don't know. What can you do? Identify human variables, collect data, hire people to collect data, help us collect data, cooperate.

Carrie Pomeroy, California Sea Grant

The human dimension of ocean and coastal management includes how and why humans value marine resources and how they affect or are affected by management decisions. The human environment includes demographics, economic activity, community structure and organization, attitudes and beliefs, cultural heritage, and governance. Socio-economics can be used to inform management policy design, assess and compare

potential impacts of alternatives, evaluate actual policy outcomes, and inform adaptive management. Dr. Pomeroy has conducted a socio-economic study of the Moss Landing commercial fishing industry. Major recommendations: Recognize the critical importance of socio-economic data and its application, increase understanding of interdependencies between ecological and socio-economic diversity and sustainability, and support programs to meet human dimensions information needs

Chris Costello, University of California, Santa Barbara

Economic activity causes species introductions. Some introductions cause economic damage. Policy responses have economic consequences. There are proactive and reactive policy responses. The key is to find the best bang for the buck. There is a large disconnect between data and theory- state investment can close this gap. Research needs include: continued monitoring, examine pathways of introduction, develop predictive risk models, calculate economic benefits and costs of competing policy responses.

Panel and CBC Discussion

CBC considers making recommendations on how to use economic data to improve ocean and coastal management.

How can we standardize data collection? For non-market data, you can collect indicators. For recreation, dialogue among organizations at the meeting will help tremendously. As for social side, access to confidential fisheries landings and cooperation of state to work out a mechanism for using data would help. There is lots of information in the administrative record. E-government collects lots of useful data.

LUNCH

AFTERNOON SESSION: Market-based Management Approaches

Session Chair: Mike Chrisman, Secretary for Resources

Introduction, Purpose, and Goals for this Session

Mike Chrisman, Secretary for Resources

This morning we heard from speakers who discussed the findings of the new report. As we heard, California has the largest ocean economy of any coastal state in the nation. Our first panel described new and innovative economic and social assessment tools that California, other coastal states, and potentially the federal government should be considering.

This afternoon we are going to explore three new and innovative approaches to using market processes to achieve environmental objectives. I'm pleased to introduce this distinguished group of experts to address the council on these issues.

Dr. ROD FUJITA is a Senior Scientist with Environmental Defense, where he leads efforts to create sustainable fisheries and marine protected areas along the Pacific coast of the U.S. In 2000, Fujita was awarded a Pew Fellowship in Marine Conservation and subsequently authored a well-received book, *Heal the Ocean*.

CRAIG DENISOFF is Senior Vice President of New Project Development and Governmental Affairs at Wildlands, Inc., a habitat development and land management company with projects throughout California and the western United States. Mr. Denisoff also serves as President of the National Mitigation Banking Association and was formerly the Assistant Secretary for the California Resources Agency.

DAVID CORY is a farmer and water quality consultant who focuses on agriculturally related water quality issues in the Central Valley. His family has been farming on the Westside of the San Joaquin Valley for over sixty years. He received his Juris Doctor degree from the McGeorge School of Law and is a member of the California State Bar but consider himself primarily to be a farmer.

Panel Presentation

Rod Fujita, Environmental Defense

In market-based management, policy makers set goals, regulators write rules for meeting goals but no prescriptions, industry develops solutions to meet goals and minimize costs... Benefits are greater acceptance by industry, economic incentives for conservation, and lower costs. Environmental Defense's Strategy for Oceans is to identify opportunities to align economic incentives with conservation, develop financing mechanisms, and create robust business plans that pay loans back. One example is the Fisheries Revolving Loan Fund authorized by the California Ocean Protection Act. To implement this fund, the state needs to invest in harvest management changes in a candidate fishery, connect to value-added activities, pay loans back, and invest in the next fishery.

Craig Denisoff, National Mitigation Banking Association

Examples of ecosystem/habitat trading include wetland mitigation banking, conservation banking, water quality trading, etc. Benefits include incentives to landowners and the application of true market values for natural resources. Mitigation banks are large areas of restored or preserved wetlands set aside to compensate for impacts to wetlands. Ecological advantages include mitigation before impact, large preserve size, biological performance standards, and increased agency oversight. Conservation banks are large areas of preserved and/or restored habitat set aside to compensate for impacts to similar

species. Challenges facing mitigation/conservation banking are lengthy processing of bank agreements, lack of coordinated agency review/policies, inconsistent policies and standards, lower standards for other forms of mitigation, lack of agency resources/expertise and environmental opposition. Challenges to coastal habitat trading include burdensome regulatory complex, lack of public support, perception, legal uncertainties, lack of trading/business expertise. Trading opportunities in coastal zone include mitigation on public lands, privately held tidal and upland areas, cross media trading, water quality trading, and watershed improvements.

David Cory, Farmer/Attorney

The Grasslands project was established to address selenium discharges to the San Joaquin River. This program was set up in collaboration with Terry Young at Environmental Defense to cap the selenium load. Farmers agreed to load limits. This area was amenable to this program because there is only one drainage outlet. It was easy to measure what goes out. The tradable load program allows farmer to trade loads between districts. Without sanctions they wouldn't have met the goals but carrots help to in addition to sticks. Tradable load program worked in the first few years but now there is a communal approach to management. Farmers invest in common projects because there are incentives to meet the goals.

Panel and CBC Discussion

CBC considers making recommendations on how to incorporate market-based approaches into ocean and coastal management.

Can you please describe how the revolving loan fund would be implemented? For example, there is legislation to establish pot limit for crabs. Each fishery is different: each community has different solutions. The key is to establish business plans that return funds to state and have clear conservation goals. Investments by state would led to more investments and revolve funds.

How do we make sure ensure that mitigation banks work? Standards are in place to ensure that mitigation banks are high quality.

Are monitoring and evaluation required for mitigation banks? Yes, there are built-in monitoring requirements.

Final Comments

Mike Chrisman: The main messages today were: California has largest ocean economy, tourism and transportation sectors are the largest sectors, proper public investments are needed, demographics of coastal region are changing, transition from good to services, the need to make regulatory decisions with little, lack of socio-economic data, the need to push socio-economic data gathering higher up in priority. As a member of OPC, we need to think about where we are heading, map out where we are heading, we need help. It appears to me that a socio-economic advisory group would be useful for Ocean Protection Council.

Sam Schuchat: Fishing is a small part on the state's economy but it is important for social and cultural reasons. Tourism is most important to economy so clean beaches are critically important. This meeting was very informative to me as a state grant-maker. Today's presentations demonstrated that the ocean economy is proportionally more important in rural areas. Market-based management of fisheries is attractive but it will not be easy the level of political argument will be loud over tradable fishing credits.

Crystal Crawford: Today's meeting provided an abundance of information. What we will be doing with this information? A goal of the CBC is information sharing to different agencies and public. This information will provide support for efforts to clean-up beaches and to seek funding in a concerted fashion. How do we go back to Washington and lobby in a concerted fashion?

Bill Douros: I have two main thoughts. This was a very educational meeting. I was struck by the value of this information and how useful it is for local governments. It would be great if NOEP could go on a road show to get this information out. Regional ocean council would greatly benefit as well. It would be great to hold an Economic Summit every several years.

Rod McInnis: This has been a very valuable day. I would like everyone to keep in mind that fishing is important to coastal communities. The fishing part of this report is only commercial fishing not recreational fishing. Magnuson-Stevens Act gives a green light for market-based approaches.

Sam Schuchat: We do not have adequate information on recreational fishing. The panelist talked about managing commercial fishing: how can we use market based approaches for recreational fishing?

David Cory: How can we get industry to implement market-based approaches? Building relationships to educate people that regulations do not mean an end to farming/fishing is key.

Bill Stewart: E-bay has made it clear that market-based approaches have the potential to engage millions of people.

Mike Chrisman: Thank you for providing advice to the Ocean Protection Council. This meeting should be goal for future meetings. Thanks to Jerry Shubel and the Aquarium of the Pacific and the Port of Long Beach.

Adjournment